# ISOLATION AND CHARACTERISATION OF CANDIDA SPECIES FROM POST- RENAL TRANSPLANT RECIPIENTS WITH URINARY TRACT INFECTION WITH SPECIAL REFERENCE TO ECHINOCANDINS


## ABSTRACT

**INTRODUCTION**:

Urinary tract infection is a common problem ,occuring in 75% of Kidney transplant recipients. Urinary tract infection degrades the health related quality of life and can impair graft function potentially reducing graft and patient survival. Among Renal transplant recipients *Candida s*pecies appears to be the most common organism causing Urinary tract infection .The emergence of Azole resistant *Candida* species is a cause for concern. Therefore a need for newer antifungal drugs which will eradicate Azole resistant *Candida* species has led to the consideration of Echinocandins.

**METHODOLOGY:**

This Cross sectional study was conducted during March 2017 to February 2018 among 100 post renal transplant recipients with urinary tract infection from Urology and Nephrology Wards in Rajiv Gandhi Government Hospital and Madras Medical College, Chennai – 3.

**RESULTS:**

- This cross sectional study of one year period included 100 patients who underwent renal transplantation between March 2017 to February 2018. Two CCMSU Samples were collected from each patient on 3$^{rd}$month (I visit) and 1 year (II visit) post transplantation and hence 200 urine samples were processed. The age group who

commonly underwent renal transplantation was between 20 to 30 years. Males 67(67%) were predominant who commonly underwent renal transplantation .The incidence of UTI among the post renal transplant recipients in this study 35(17.5%) of which the incidence of UTI was found to be 21(10.5%) ,14(7%) during the I visit and II visit respectively. The incidence of UTI was higher in females (24%) and males 11% in this present study. Most of the Post Renal Transplant recipients had Asymptomatic Candiduria (79%).Recipients who received the transplant from deceased donor has a higher propensity 21 (60%) to acquire UTI. In this study *Candida albicans*11(31.4%) was the most common .Among the 35 *Candida* isolates, most of the isolates are sensitive to Azoles and Nystatin B except *Candida glabrata* and *Candida krusei* resistant to Azoles. All the azole resistant *Candida* isolates were sensitive to Echinocandins Among the 35 *Candida* isolates, Biofilm produced predominantly by *Candida albicans* followed by *candida non-albicans.*

**CONCLUSION:**

Females were identified with higher incidence of UTI so proper personal care and Education should be advised. Recipients who received graft from deceased donor should be followed up and monitored as they are prone for developing UTI. Proper hydration ,frequent voiding, helps in preventing UTI among the Post Renal Transplant recipients .All patients should have regular follow up with urine culture, followed by proper antibiotics usage.

**Keywords:** Urinary tract infection, Post renal transplant recipients, Azoles, Echinocandins.